

Butterflies in Your Garden by Lloyd Eighme

Summertime in the garden. Pretty butterflies flitting back and forth in the warm sunshine. Sounds wonderful doesn't it? But what about the butterflies that are uninvited guests in your garden. Are there some that you wish would stay away?

The nice, white butterflies flitting up and down the rows of cabbages and broccoli in your garden are definitely undesirable guests. The immature cabbageworm (*Pieris rapae*) was introduced from Europe in 1858. The earliest records are from Quebec, Canada, but it spread rapidly and was in California by 1883. It is a persistent pest, often the first butterfly to appear in early spring and with us until fall frost. It goes through three generations during the summer, increasing its numbers greatly each time. The females lay their eggs on many cruciferous plants, such as cabbage, broccoli, cauliflower, brussels sprouts, mustard and rape, a plant grown for its seed (the species name *rapae* probably refers to this plant). The caterpillars are rather slow moving green "worms" with some faint yellow stripes and smooth velvety skin covered with fine hair. They tend to eat round holes in the leaves rather than chewing in from the edge. They produce an abundance of fecal pellets that rattle down between the loose leaves of a developing cabbage head producing contamination that is often more damaging than holes in the leaves. The rapid flying adult butterflies are white with black tips on the front wings. The females have two small black spots on the front wings, whereas the males have only one black spot on the front wings. Both sexes have one black spot on the front edge of the hind wing.

You may see another white butterfly with black spots that is our native *Pieris napi* called the mustard white. It will more likely be laying eggs on our native cruciferous plants like winter cress. It is usually seen in wooded areas on uncultivated, open spaces. If it does venture into your garden, it will likely be chased away by the imported cabbage worm butterflies which are very aggressive. I have watched the cabbage worm butterflies chase all other butterflies from my (their?) garden. That makes me want to chase them, but they are too fast for me even with my butterfly net. So I usually spray my crucifers with pesticides, preferably Bt that is non-toxic to most other insects and will not even harm an entomologist!

There are some biological controls against the cabbage worm butterflies, but none of them will completely eradicate this pest species. One of America's first prominent entomologists, C.V. Riley, imported a braconid wasp parasite (*Apanteles glomeratus*) In 1883 in an attempt to control the imported cabbage worm butterfly. It helped, but not enough to eliminate the need for chemical pesticides.

There are a few other white butterflies that you might see flying in your garden, but you can easily recognize the imported cabbage worm butterfly by its black spots, but then you also know that means trouble ahead!



Imported Cabbageworm Butterfly



Our Native Pieris Butterfly